



Lead Safety DOING IT RIGHT

Do I need to worry about lead at my business?

Lead can cause serious health damage

to employees even at low levels. Lead at work can harm workers' families as well. Lead taken home on work clothes and shoes can poison children and other household members.

Determine whether lead is present at your business. ► Check the material safety data sheet (MSDS) or the chemical composition sheets for the products and materials you use. ► If you work in construction, assume that you are working with lead-containing paint unless you test all the surfaces and lead is not present. ► If you work on residential buildings built before 1978, you should always assume that lead is present.

If your business uses or disturbs lead

you need to take steps to keep lead dust and fume levels low and prevent lead from going home. This fact sheet tells you how to set up a lead safety program for your business. At first, it may seem like a lot to do. You can't do it all overnight. But if you start with the easy changes and keep moving forward you'll succeed. Every step you take moves you closer to a lead-safe workplace.

Preventing lead poisoning saves you money

in the long run. You will have healthier, more productive employees. You also won't have to worry about being held responsible if a household member is poisoned by lead brought home from the workplace.

Have you considered going lead-free?

The best way to control lead exposure is to switch to lead-free materials or products. Many more lead-free substitutes are now available. Lead-free materials may cost a little more, but you'll save time and money in the long run by avoiding Cal/OSHA and environmental lead regulations. Ask your trade association, your suppliers, and other business owners for help identifying lead-free substitutes.



CDPH

California Department of Public Health
Occupational Lead Poisoning Prevention Program

June 2011

1. Easy changes

✓ Prevent workers from swallowing lead.

- ▶ Provide a clean eating area.
- ▶ Don't allow eating, drinking, or smoking in the work area.
- ▶ Provide warm water, soap, and clean towels to workers.
- ▶ Require workers to wash their hands, forearms, and face before eating, drinking, smoking, or leaving work.



✓ Protect workers and their families by preventing lead dust from going home.

- ▶ Provide workers with work clothing and shoes at no cost to them.
- ▶ Don't allow workers to leave the worksite wearing their work clothes or shoes.
- ▶ Provide workers with a clean changing area with separate storage for work and street clothes and shoes.
- ▶ Store contaminated work clothes and shoes at the worksite in closed containers or plastic bags with warning labels.
- ▶ Wash work clothing at the worksite or use a commercial laundry service.



✓ Keep the worksite clean.

- ▶ Clean the work area and work surfaces daily.
- ▶ Use a commercial HEPA vacuum or wet cleaning method such as wet mopping. HEPA vacuums cost between \$400 and \$800.
- ▶ **Never** clean work areas by dry sweeping or blowing with compressed air.



✓ Train workers to work safely with lead.

- ▶ Train new workers when they start the job.
- ▶ Train everyone at least once a year.

Provide blood lead testing for workers at least every six months.

- ▶ Arrange with a medical doctor to order a blood lead level test. You should pay for the test. *See page 5 to find a doctor for this service.*

2. Next Steps

✓ Use work methods that keep lead dust and fume levels down.

For example:

- ▶ Use shears instead of a saw or a torch for cutting metal.
- ▶ Replace powdered ingredients with liquid ingredients or large pellets.
- ▶ Use a long-handled torch and stand away from the smoke when cutting metal.
- ▶ Strip back paint before cutting or welding.
- ▶ Mist surfaces with water before sanding or scraping lead-containing paint.



Scrap worker cutting steel with a long-handled torch.



Painter misting surface before scraping.



Steel with paint stripped back.

Ironworker welding on stripped steel.

✓ Separate lead work areas from non-lead work areas.

Enclose equipment if possible or move it to a separate room. In construction, plastic sheeting can be used to isolate dusty work from the surrounding area.



A painter uses plastic sheeting to separate rooms.

3. Upgrading your program

✓ Capture lead dust and fume before it gets into the air workers breathe.

- ▶ Get a local exhaust ventilation system for lead operations. If you already have one, make sure it is always turned on and positioned correctly. *See page 5 for more information on installing a local exhaust ventilation system.*
- ▶ Attach power tools to a commercial HEPA vacuum. Make sure the tool also has a shroud for better dust collection.



Painter using HEPA-attached power sander.

Local Exhaust Ventilation



Local exhaust ventilation captures lead dust or fume at its source before it can contaminate the air workers breathe. Lead dust or fume is drawn into a hood and carried through a duct out of the workplace. Portable systems are available for construction.

Photo: Radiator repair worker

- ▶ Measure the amount of lead in the air to make sure dust and fume collections systems are working effectively.

✓ Provide workers with respirators for added protection.



Use P-100, N-100, or R-100 filters.

- ▶ Measure the amount of lead in the air to determine what type of respirator workers need. At a minimum, provide a half-face respirator with P-100, N-100, or R-100 filters. *See page 5 if you need help finding someone to do air monitoring for you.*
- ▶ Have a doctor evaluate whether workers can wear one without harming their health. *See page 5 to find a doctor for this service.*
- ▶ Provide each worker with a fit test to select a respirator that fits well. Call your respirator supplier to see if they can provide fit testing or purchase a fit-test kit.

✓ Provide a shower at the worksite for workers to use at the end of their shift. Portable shower trailers are available for construction operations.

Lead regulations

Employers must follow special regulations to protect their employees from lead hazards on the job. These regulations are called the Cal/OSHA Lead Standards. With an effective lead safety program in place, like the one described in this fact sheet, you will lower your chance of getting a Cal/OSHA citation. You will also have the satisfaction of knowing that you helped protect yourself, your employees, and their families from lead poisoning. For a copy of the Cal/OSHA Lead Standards go to:

- *Construction Lead Standard:* <http://www.cdph.ca.gov/programs/olppp/Documents/lic.pdf>
- *General Industry Lead Standard:* <http://www.cdph.ca.gov/programs/olppp/Documents/ligi.pdf>

Or call us at: (866) 627-1587 – toll free to California callers.

Resources

Finding a medical doctor for blood lead level testing and respirator evaluations:

Occupational medicine providers and clinics are usually the best equipped to offer blood lead level testing and evaluate workers for respirator use. To find a medical provider go to: www.cdph.ca.gov/programs/olppp/pages/BLLtesters.aspx

Finding a local exhaust ventilation system:

- ▶ Pre-fabricated systems
 - Contact your trade association, other business owners in your industry, or equipment suppliers to see if there are any pre-fabricated systems available for your work operations.
- ▶ Custom-designed systems
 - Talk to other business owners in your industry or look in the phone book or on the web for a heating and ventilation contractor.
 - Choose someone with experience designing ventilation systems to lower worker exposure to toxic materials.

Providing lead safety information and training to your employees:

The California Department of Public Health has educational materials and videos (in English and Spanish) for training employees about lead safety. For copies go to www.cdph.ca.gov/programs/olppp, or call (866) 627-1587

Finding someone to do air monitoring for lead:

- ▶ Contact your workers' compensation carrier and ask whether they provide free air monitoring.
- ▶ Hire an industrial hygiene consultant. To find a consultant go the American Industrial Hygiene Association web page: <https://webportal.aiha.org/Custom/ConsultantsSearch.aspx>

For additional information:

Toll-free to California callers.

- ▶ For information about lead safety: (866) 627-1587
- ▶ For information about other workplace hazards: (866) 282-5516
- ▶ California Relay Service: (800) 735-2929 or 711
- ▶ www.cdph.ca.gov/programs/ohb

The Occupational Lead Poisoning Prevention Program is funded by the fees paid by California businesses in industries with the potential for lead poisoning. For more information about the Occupational Lead Poisoning Prevention Fee go to: <http://www.boe.ca.gov/sptaxprog/occupleadfee.htm>

To obtain a copy of this document in an alternate format, please contact: (510) 620-5757. Please allow at least ten (10) working days to coordinate alternate format services.

Lead Safety Program Checklist

Use the checklist below to help you assess lead safety at your business.

At first this may seem like a lot to do. You can't do it all overnight. But if you start with the easy changes and keep moving forward you'll succeed. Every step you take moves you closer to lead-safe workplace.

1. Easy Changes

- ☐ **Provide a clean lunchroom and clean changing area.**
 - ▶ If you work in construction, this may be an area away from the work area that is protected from lead contamination.
- ☐ **Provide wash-up facilities.**
 - ▶ If you work in construction, portable wash stations may be provided.
 - ▶ Provide workers with sufficient time to wash up before breaks, lunch, and going home.
- ☐ **Provide work clothes and work shoes** that stay at the job site. Arrange for laundering of soiled clothes or proper disposal.
- ☐ **Provide a HEPA vacuum or tools for wet cleaning** the work area.
- ☐ **Train workers to work safely with lead.**
 - ▶ Make sure the training includes information about the health effects of lead and blood lead level testing.
 - ▶ Train new workers when they start the job and all workers at least once a year.
- ☐ **Provide workers with a blood lead level test** at least every six months.

If you can't get one of these steps done right away, go on to the next step. Come back to anything you skipped.

2. Next Steps

- ☐ **Use work methods that keep lead dust and fume levels down.**
- ☐ **Separate lead work areas from non-lead work areas.**
 - ▶ In construction, plastic sheeting can be used to isolate dusty work from the surrounding area.

3. Upgrading Your Program

- ☐ **Capture lead dust and fume before it gets into the air workers breathe.**
 - ▶ Install local exhaust ventilation whenever possible.
 - ▶ Attach power tools to a HEPA vacuum.
- ☐ **Provide workers with a respirator for added protection.**
 - ▶ Pay for a doctor to evaluate whether they can wear a respirator without harming their health.
 - ▶ Provide workers with fit tests to make sure the respirator fits well.
 - ▶ Make sure you are using N-100, R-100, or P-100 filters.
 - ▶ Train workers how to use and take care of their respirators.
- ☐ **Provide shower facilities.**
 - ▶ If you work in construction these may be portable showers.



**California Department of Public Health
Occupational Lead Poisoning Prevention Program**

Occupational Health Branch
850 Marina Bay Parkway, Building P, Third Floor, Richmond, CA 94804

